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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,458	02/12/2007	Paul L. Scherzer	10058/00005	4133
23380 7590 12/17/2008 TUCKER ELLIS & WEST LLP 1150 HUNTINGTON BUILDING 925 EUCLID AVENUE CLEVELAND, OH 44115-1414				
EXAMINER CUEVAS, PEDRO J				
ART UNIT 2834		PAPER NUMBER		
NOTIFICATION DATE 12/17/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/576,458

Applicant(s)

SCHERZER, PAUL L.

Examiner

PEDRO J. CUEVAS

Art Unit

2834

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 1/30/07

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,479,350 to Newton et al. in view of U.S. Patent No. 4,329,842 to Hoskinson, deceased.

Newton et al. disclose the construction of a system for the recovery of power from vaporization of liquefied natural gas, comprising:

means (45) adapted for receiving gas at that is pressurized at a first pressure level from a first portion (8) of an associated gas reservoir system (Figure 1);

means (26) adapted for directing the pressurized gas to a turbine (27) so as to induce motion thereof;

a generator (30), mechanically coupled to the turbine, the generator including means for generating an electrical current induced from motion of the turbine;

means (31) adapted for directing the gas from the turbine, after passage therethrough, to a second portion (36) of the associated gas reservoir system at a secondary pressure level less than that of the first associated gas reservoir; and

a compressor (43) including means for increasing the secondary pressure level.

However, it fails to disclose means adapted for using at least a portion of the electrical current to drive an associated compressor.

Hoskinson disclose the construction of a power conversion system utilizing reversible energy of liquefied natural gas, comprising:

a turbine (30) mechanically connected to a generator (36), the generator including means for generating an electrical current induced from motion of the turbine;

means (power feedback loop) adapted for using at least a portion of the electrical current to drive an associated compressor (14, 18 and 26) for the purpose of transporting and increasing the pressure of LNG, increasing the pressure of ambient air and pressurizing liquid air.

It would have been obvious to one skilled in the art at the time the invention was made to use the power feedback loop disclosed by Hoskinson on the system disclosed by Newton et al. for the purpose of increasing the pressure of the working fluid.

5. With regards to claim 2, Hoskinson disclose:

means (32) adapted for directing gas at the secondary pressure level to an associated combustion generator (34) so as to generate additional electrical current from combustion thereof; and

means (power feedback loop) adapted for directing the additional electrical current to the compressor so as to further increase the secondary pressure level.

6. With regards to claim 3, it would have been obvious to one having ordinary skill in the art at the time the invention was made to increase of the secondary pressure level is at least that of the first pressure level, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).
7. With regards to claim 4, Newton et al. disclose the first and second portions of the gas reservoir system are in direct mutual fluid communication (Figure 1).
8. With regards to claims 1 and 2, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.
9. With regards to claim 5, Newton et al. disclose (see column 2, line 44 to column 6, line 7) a method for exploiting power from a pressurized gas reservoir comprising the steps of:

receiving gas at that is pressurized at a first pressure level from a first portion of an associated gas reservoir system;

directing the pressurized gas to a turbine so as to induce motion thereof;

generating, at a generator mechanically coupled to the turbine, an electrical current induced from motion of the turbine; and

directing the gas from the turbine, after passage therethrough, to a second portion of the associated gas reservoir system at a secondary pressure level less than that of the first associated gas reservoir.

Hoskinson discloses (see Figure 1) a method for exploiting power from a pressurized gas reservoir comprising the step of using at least a portion of the electrical current to drive an associated compressor, which compressor includes means for increasing a secondary pressure level.

10. With regards to claim 6, Hoskinson disclose the steps of:

directing gas at the secondary pressure level to an associated combustion generator so as to generate additional electrical current from combustion thereof; and
directing the additional electrical current to the compressor so as to further increase the secondary pressure level.

11. With regards to claim 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made to increase of the secondary pressure level is at least that of the first pressure level, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

12. With regards to claim 8, Newton et al. disclose the first and second portions of the gas reservoir system being in direct mutual fluid communication.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEDRO J. CUEVAS whose telephone number is (571)272-2021. The examiner can normally be reached on M-F from 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quyen Leung can be reached on (571) 272-8188. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pedro J. Cuevas/
Examiner, Art Unit 2834
December 16, 2008